

IN THE CLAIMS:

Please add claim 17 as follows:

1. (Previously Presented) A storage control apparatus for accessing a storage device according to a data access request from a requesting apparatus, comprising:
 - a first controller which has a first cache memory and is in charge of a first storage device out of a plurality of storage devices; and
 - a second controller which has a second cache memory and is in charge of a second storage device out of said plurality of storage devices, wherein
 - said first controller further comprises a first mirror management table for managing allocation of a storage page in a mirror area of said second cache memory, and said second controller further comprises a second mirror management table for managing allocation of a storage page in a mirror area of said first cache memory,
- and wherein when said first controller receives a data write request containing write data from said requesting apparatus, said first controller allocates a page in a read/write area of said first cache memory, acquires a storage page in the mirror area of said second cache memory by referring to said first mirror management table, writes the write data from said requesting apparatus to the page allocated in the read/write area of said first cache memory, and copies the write data to the acquired page in the mirror area of said second cache memory.

2. (Previously Presented) The storage control apparatus according to Claim 1, wherein said first and second controllers mutually notify the sizes of said first and second cache memories, allocate the mirror areas of said first and second cache memories according to the sizes of said first and second cache memories, and create said first and second mirror management tables from said allocation.

3. (Original) The storage control apparatus according to Claim 1, wherein said first controller writes back the data, which is written in the page allocated in the read/write area of said first cache memory, to said storage device, then releases said acquired page of said first mirror management table.

4. (Previously Presented) The storage control apparatus according to Claim 1, wherein when said first controller is degraded, said second controller takes charge of the storage device which said first controller is in charge of, and links the storage page in the mirror area of said second cache memory to said read/write area.

5. (Original) The storage control apparatus according to Claim 4, wherein said second controller disables read/write processing to the mirror area of said second cache memory.

6. (Previously Presented) The storage control apparatus according to Claim 1, wherein when said first controller receives a data write request for a plurality of pages from said requesting apparatus, said first controller allocates a plurality of pages in the read/write area of said first cache memory, acquires a plurality of storage pages in the mirror area of said second cache memory referring to said first mirror management table, writes the write data from said requesting apparatus to the allocated page in the read/write area of said first cache memory, copies the write data to the acquired page in the mirror area of said second cache memory, and writes the data of the next page to the next page allocated in the read/write area of said first cache memory during said copying.

7. (Previously Presented) The storage control apparatus according to Claim 1, wherein each one of said first and second controllers comprises:
a control unit for controlling said cache memory and said storage device; and
a node channel circuit for performing direct communication between said control units.

8. (Previously Presented) The storage control apparatus according to Claim 7, wherein said first control unit instructs said first node channel circuit to execute the DMA transfer of data of the page allocated in the read/write area of said first cache memory to the acquired page in the mirror area of said second cache memory, and performs said copying.

9. (Previously Presented) A storage control method for accessing a storage device according to a data access request containing write data from a requesting apparatus, comprising the steps of:

allocating a page in a read/write area of a first cache memory disposed in one controller of a pair of controllers when said one controller receives a data write request from said requesting apparatus;

acquiring a storage page in a mirror area of a second cache memory referring to a first mirror management table which is disposed in said one controller for managing allocation of a storage page in the mirror area of said second cache memory of said other controller;

writing the write data from said requesting apparatus to the page allocated in the read/write area of said first cache memory; and

copying the write data to the acquired page in the mirror area of said second cache memory after said writing.

10. (Previously Presented) The storage control method according to Claim 9, further comprising the steps of:

mutually notifying the sizes of said first and second cache memories between both controllers;

allocating the mirror areas of said first and second cache memories according to the sizes of said first and second cache memories; and
creating said first and second mirror management tables from said allocation.

11. (Original) The storage control method according to Claim 9, further comprising the steps of:

writing back the data, which is written in the page allocated in the read/write area of said first cache memory, to said storage device; and
releasing said acquired page of said first mirror management table when said write back completes.

12. (Previously Presented) The storage control method according to Claim 9, further comprising a step of taking charge of the storage device which said one controller is in charge of by said other controller when said one controller is degraded, and linking the storage page in the mirror area of said second cache memory to the read/write area of the second cache memory.

13. (Original) The storage control method according to Claim 12, further comprising a step of disabling read/write processing to the mirror area of said second cache memory.

14. (Original) The storage control method according to Claim 9, further comprising a step of writing the data of the next page to the next page allocated in the read/write area of said first cache memory during said copying when said one controller receives a data write request for a plurality of pages from said requesting apparatus.

15. (Previously Presented) The storage control method according to Claim 9, wherein each one of said pair of controllers comprises a control unit for controlling said cache memory and said storage apparatus, and a node channel circuit for performing direct communication between said control units.

16. (Previously Presented) The storage control method according to Claim 15, wherein said copying step comprises a step of said first control unit instructing said first node channel circuit to execute the DMA transfer of the data of the page allocated in the read/write area of said first cache memory to the acquired page in the mirror area of said second cache memory and performing said copying.

17. (New) A storage control apparatus for accessing a storage device according to a data access request from a requesting apparatus, comprising:
a first controller which has a first cache memory and is in charge of a first storage device out of a plurality of storage devices; and

a second controller which has a second cache memory and is in charge of a second storage device out of said plurality of storage devices, wherein

 said first controller further comprises a first mirror management table for managing allocation of a storage page in a mirror area of said second cache memory, and said second controller further comprises a second mirror management table for managing allocation of a storage page in a mirror area of said first cache memory,

 wherein when said first controller receives a data write request containing write data from said requesting apparatus, said first controller allocates a page in a read/write area of said first cache memory, acquires a storage page in the mirror area of said second cache memory by referring to said first mirror management table, writes the write data from said requesting apparatus to the page allocated in the read/write area of said first cache memory, and copies the write data to the acquired page in the mirror area of said second cache memory, and

 wherein one of said first and second controller manages a paging allocation of a mirror area in the other of said first and second controller.